

Governor's Water Augmentation Council

Desalination Committee

September 20, 2016 Meeting Summary

Time: 10:00am – 12:00pm

Location: Arizona Department of Water Resources

Welcome and Introductions

Chairman Robert Lotts called the meeting to order and welcomed those in attendance. All participants in the meeting introduced themselves individually. The following members of the Governor's Water Augmentation Council (GWAC) were present, Wade Noble, John Kmiec, and Glenn Hamer. Bruce Hallin attended on behalf of Council Member Dave Roberts.

Reflect on the Successes and Failures of Past and Current Projects

Zacary Richards, Water Resources Specialist for the Arizona Department of Water Resources, provided a presentation on past, present and possible future desalination projects to give the committee a general overview of the time and the cost commitment demanded by such projects. This presentation is available on the ADWR website.

http://www.azwater.gov/AzDWR/Arizona_Water_Initiative/documents/DesalinationPresentation.pdf

Scope and Selection of Objectives

Following Richards' presentation, Chairman Lotts proposed the following questions: *who is the target recipient of the water augmentation project and what is the period of time that we have moving forward?* He emphasized the need to obtain alternative sources of water supply without accumulating a financial burden as well the consideration of the unintended consequences involved. He noted that a graph with a sliding scale depicting a cost per unit of a specific technology or material would be beneficial in answering those questions. Moreover, models that portray the longevity of the state's brackish groundwater stock are crucial in preventing an investment into a shrinking supply.

Bruce Hallin of the Salt River Project recommended that information be gathered concerning examples of what other states have accomplished, which projects were successful, which projects have failed, and why.

Chairman Lotts asserted that evaporation ponds were an expensive method of brine disposal, therefore a cost-effective solution for the disposal of brine should be discussed.

Glenn Hamer of the Arizona Chamber of Commerce noted that the cost of a desalination project is the primary political concern. However, over time the technology tends to become cheaper as more desalination facilities are constructed.

Chairman Lotts highlighted the scope of the committee, in accordance with what he gathered at the GWAC's previous meeting, was to explore opportunities for in-state desalination with a focus on brackish groundwater and effluent supplies. The areas that the committee should cover are in-state

water resources, quantity and quality, identification of the technology for desalination purposes, as well as the cost and energy requirements. Future projects would have a timeframe with a fifty to a one-hundred year projection.

Assignment of Tasks

Chairman Lotts assigned tasks to individuals on the committee to either gather more information to present to the committee or to reach out to experts who would have knowledge that could be shared with the committee.

ADWR Gerry Walker and Zacary Richards:

- Identification of projects that were successful and unsuccessful and why.
- Brine disposal methods within the nation and internationally.
- Models of brackish groundwater supplies in Arizona.
- Reach out to Misael Cabrera of the Arizona Department of Environmental Quality for guidance in regards to brine disposal methods and regulations within the state. Invite his participation for future meetings.

Robert Lotts:

- Contact various experts of their field:
 - Sharon Megdal (WRRRC) overview of national and international projects, successes and challenges.
 - Chuck Collum (CAP) for a sliding scale of the cost of saline water treatment.
 - Angela Adams (USBR) operation of the Yuma Desalination Plant future challenges and plans.
 - Sandia National Laboratories for current research regarding reverse osmosis membrane technologies.

Public Comments:

Jennifer Martin, representing the Sierra Club, offered to share information with the committee regarding the unintended consequences of treating saline water, particularly the ecological impact.

Rory Van Pouke, Director of the Apache Sun Golf Course (Director), and member of the Golf Course Superintendents Association suggested working with universities for gathering data.

The next GWAC Desalination Subcommittee meeting will be held at the new ADWR office at 1110 West Washington St., Suite 310, Phoenix, AZ 85007. The meeting is scheduled for 10 a.m. on Wednesday, November 9, 2016.